

REMARKS

Claims 1-4, 6-14 and 16-23 remain in this application. Claims 1-4, 6-14 and 16-23 are rejected. Claims 5 and 15 are previously cancelled. Claim 1 is amended herein to clarify the invention.

Applicants herein traverse and respectfully request reconsideration of the rejection of the claims cited in the above-referenced Office Action.

Claims 1-3 (and presumably also claims 4, 6, 14 and 16) are rejected under 35 U.S.C. §102(b) as being anticipated by the Abraham et al. reference (US 5,883,007). Applicants herein respectfully traverse this rejection.

For a rejection to be sustained under §102(b) each and every element of the claimed invention must be disclosed in the cited prior art reference. It is respectfully submitted that the cited reference fails to disclose at least the following features and elements of the present invention as

Independent claim 1, as now amended, recites in pertinent part the following:

adding CHF₃ gas to the processing gas for
etching the lowermost layer on the substrate, wherein
the processing gas is one of Cl₂ and a gaseous mixture
containing Cl₂, and wherein CHF₃ is substantially

absent from said processing gas prior to said step of

adding CHF₃

An important distinction between the presently claimed invention and the cited reference resides in the intentional absence of CHF₃ from the initial gas mixture (first chemistry) of the present invention, at least before a layer present above a lowermost layer has been etched away. In contrast, Abraham et al. teaches that all of the disclosed gas mixtures constituting the first chemistry contain CHF₃ (see col. 3, lines 51-55). In accordance with the present invention, CHF₃ is only present (at least in meaningful quantities) in the gas mixture used to etch the lowermost layer of the substrate, a feature believed absent from the disclosed subject matter of the cited reference.

Claim 1 particularly describes and distinctly claims at least one element not disclosed in the cited reference. Claims 2-4, 6, 14 and 16 depend from claim 1, and therefore also contain the feature lacking in Abraham et al.. Therefore, reconsideration of the rejection of claims 1-4, 6, 14 and 16 and their allowance are respectfully requested.

Claims 7-11, 13 and 17-23 are rejected under 35 U.S.C. §103(a) as obvious over the Abraham et al. reference. Applicants herein respectfully traverse this rejection.

It is respectfully submitted that the Abraham et al. reference cannot render the rejected claims obvious because the reference does not provide the teaching noted above with respect to the anticipation rejection of claim 1, from which the rejected claims depend. Thus, the reference fails to teach or suggest all the claim limitations, as properly required for establishing a *prima facie* case of obviousness. Therefore, reconsideration of the rejection of claims 7-11, 13 and 17-23 and their allowance are respectfully requested.

While it would appear that claim 12 has not been substantively rejected, applicants submit that the claim is patentable, based at least in part on the subject matter of claim 1, from which it depends, as well as for the additional recitations it contains.

Applicants respectfully request a two (2) month extension of time for responding to the Office Action. Please charge the fee of \$420 for the extension of time to Deposit Account No. 10-1250.

Docket No. F-7041

Ser. No. 09/892,023

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited. Please charge any deficiency or credit any overpayment to Deposit Account No. 10-1250.

Respectfully submitted,
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